	<i></i>	<u>51</u>
ubstitute for Form 1449/PTO	AUG 1 1 2004	<u></u>
INFORMATION	DISCLOSE	RE
STATEMENT B'	Y APPLICA	TN
(use as many sheet	ts as necessary)	

Complete if Known						
Application Number	09/955,529					
Filing Date	September 17, 2001					
First Named Inventor:	Mark Peting					
Art Unit	2631					
Examiner Name	Not Yet Assigned					
Attornov Docket Number	004350 B033					

Sheet	1		of	2	Attorney Docket Number	004259.P032
			U.S. PA	TENT DOCUMENTS	3	
Examiner Initials*	Cite No.		Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant
		Number	-Kind Code <sup>2</sup> (If known)			RECENTED
a	1	US-	4,015,238	3/29/1977	Robert Curtis Davis	
_		US-	5,027,374	6/25/1991	Mark W. Rossman	AUG 1 3 2004
		US-	5,291,499 A	3/1/1994	Behrens et al.	
		US-	5,295,142	3/15/1994	Izumi Hatakeyama T	echnology Center 260
-		US-	5,349,608	9/20/1994	Graham, et al.	Seminara 31. Actival. 500
7 .		US-	5,608,737 A	3/4/1997	Kimura, et al.	
7		US-	5,907,586	5/25/1999	Katsuragawa, et al.	
7		US-	6,189,126 B1	2/13/2001	Ulmer, et al.	
		US-	6,266,687 B1	7/24/2001	Leyonhjelm, et al.	
		US-	6,301,314 B1	10/9/2001	Murayama, Jun	
a		US-	6,563,889 B1	5/13/2003	Shih, et al.	
		US-				
		US-				
		US-				
		us.			I	

		T	REIGN PATENT			
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document  Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T'

Examiner		Date, Considered
Signature	1	1/29/08

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at <a href="https://www.uspto.gov">www.uspto.gov</a> or MPEP 901.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁴Applicant is to place a check mark here if English language translation is attached,

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SENT FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

O1 1 6 2003 65

Substitute for form 1449A/PTO

Sheet

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

2

of

2

 Complete if Known

 Application Number
 09/955,529

 Filing Date
 September 17, 2001

 First Named Inventor
 Mark Peting

 Arl Unit
 2631

 Examiner Name
 Unassigned

 Attorney Docket Number
 4259P032

NON PATENT LITERATURE DOCUMENTS Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, Examiner Cite magazine, journal, senal, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or Initials\* No. country where published. BOUCHERET/MORTENSEN/FAVARO, "Fast Convolution Filter Banks for Satellite Payloads with On-Board Processing," IEEE Journal on Selected Areas in Communications, February 1999, pp. 238-247, Vol. 17, No. 2, XP-000851758 YIM/COAKLEY, "On-Board Processing for KA-Band Applications," February 11, 1993, pp. 225-229, University of Surrey, UK, XP 000458011 OCT 2 0 2003 Technology Center 2600

Examiner Signature	All	Date Considered 74/05

\*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

'Applicant's unique citation designation number. 'Applicant is to place a check mark here if English language Translation is attached.

Based on PTO/SB/08B (08-03) as modified by Blakely, Solokoff, Taylor & Zafman (wir) 08/11/2003. Send To: Commissioner for Patents. P.O. Box 1450, Alexandria, VA 22313-1450

0176

by bstitute for form 1449A/PTO

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 1 of 2

Complete if Known				
Application Number	09/955,529			
Filing Date	September 17, 2001			
First Named Inventor	Mark Peting			
Art Unit	2631			
Examiner Name	Unassigned			
Attorney Docket Number	4259P032			

<u> </u>		<del></del>	U.S. PATE	NT DOCUMENTS	
Examiner Initials*	Cite No.'	Document Number  Number - Kind Code <sup>2</sup> (if known)	Publication Date Issue Date MM-OD-YYYY	. Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
an		US-6,278,725 B1	08-21-2001	Rouphael et al.	
5	1	US-6,266,687 B1	07-24-2001	Leyonhjelm et al.	
		US-			RECEIVED
		US-			TLULIVI
		US-			OCT 2 0 2003
		US-			l I
		US-			Technology Center 2600
		US-			1601110103)
		US-			

FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No.'	Foreign Patent Document			Pages, Columns, Lines,	1,		
		Country Code' - Number' - Kind Code' (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Where Relevant Passages or Relevant Figures Appear			
0	1	WO 01/59937 A2	08-16-2001	Qualcomm Incorporated				
6	1	WO 00/74264 A1	12-07-2000	Watkins-Johnson Company		L		
						L		
	l							
			-					

Examiner	11/2	Date	1/ /0/	
Signature	// 00	Considered	1/28/05	

\*Examiner: Initial if reference physidered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next conformance and not considered.

'Applicant's unique citation designation number (optional). 'See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. 'Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 'For Japanese patent documents, the Indication of the year of reign of the Emperor must pracede the serial number of the patent document. 'Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. 'Applicant is to place a check mark here if English language Translation is attached.

Based on PTO/SB/08A (08-03) as modified by Blakely, Solokoff, Taylor & Zafman (wir) 08/11/2003.

ubstitute 1	for Form 1	1449/PTO		Cor	mplete if Known	
INIEC	JDNA.	TION DIS	CLOSURE	Application Number	09/955,529	
				Filing Date	September 17 QUICEI	<b>/</b> E
STA	TEME	NT BY A	PPLICANT	First Named Inventor:	Mark Peting	
	(use as	many sheets as ne	cessary)	Art Unit	2631 AUG 1 3 20	004
				Examiner Name	Not Yet Assigned	
heet	2	of	2	Attorney Docket Number	004259.P03bechnology Cen	iter 2
			NON PATENT L	ITERATURE DOCUMENTS		
xaminer Initials*	Cite No <sup>1</sup>	Include name item (boo	k, magazine, journal, s	ITAL LETTERS), title of the artic serial, symposium, catalog, etc.) blisher, city and/or country when	cle (when appropriate), title of the o, date, page(s), volume-issue re published	T <sup>2</sup>
W		BREE, ET AL. Research Gro	, "A Bit-Serial Architec up, University of Saska	ture For A VLSI Viterbi Processo atchewan, Saskatoon, IEEE, WE	or", Communications Systems ESCANEX '88, 1988, pages 72-77.	
~_	-	Science Publis Pages 3-16.	shers B.V.,INTEGRATI		, October, No. 1, Amsterdam, NL,	
a		Communicatio	ns Systems Research	Architecture For Large Constra Group, University of Saskatche nications", 1990, pages 1501-15	wan, Saskatoon, Canada, IEEE	
~	-	Speech and In	nage Technologies for	itecture For High-Speed Optica Computing and Telecommunica ectronics, Vol. 1, Dec 1997, pag	I Storage", 1997, IEEE TENCON - ations, ASIC Center Corporate es 89-92.	
a		W.H. YIM and Surrey, UK, Po	F.P. COAKLEY, "On-lublication Date, Februa	Board Processing For KA-Band ary 11, 1993., XP 000458011, p	Applications", University of p. 225-229.	
a		HASHIDA MIT Management	SUYOSHI, "Hierachic Information," Patent At	al Network Management System ostracts of Japan, Publication N	n and Control Method for Network o. 07226777	
	I				•	

Examiner		Date	1/20	la
Signature	m ff	Considered	92	/ * *

\*Examiner. Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

'Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a check mark here if English Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SENT FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Substi		Form 1449A/PT nany sheets as necess			Attorney Docket No.: 04259.P032	Application Numb 09/955,529	oer:
0	NIN O 4 2003				First Named Inventor: Mark Peting	·	
Jun .					Filing Date: September 17, 2001		
				U.S. PATEN	NT DOCUMENTS		
Exam.	Cite	U.S. Patent	Document	Name of Patentee or Applicant	Date of Publication	Pages, Columns,	
Initial*	No.¹	Number Kind Code <sup>2</sup> (If known)			of Cited Document	of Cited Document MM-DD-YYYY	Lines, Where Relevant Passages or Relevant Figures Appear
a		5,778,192			Schuster, et al.	7-7-1998	
a		6,157,997			Oowaki, et al.	12-5-2000	
						REC	EIVED
						JUN	6 2003
						Technolog	Center 2600

Exam. Initial*	Cite	Foreign Patent Document			Name of Patentee or Applicant	Date of	Pages, Columns,	T
	No.¹	Office <sup>3</sup> Code <sup>5</sup>	Number <sup>4</sup>	Kind (If known)	of Cited Document	Publication of Cited Document MM-DD- YYYY	Lines, Where Relevant Passages or Relevant Figures Appear	
a		EP	0 762 777		Uchiumi, Tadasgu, et al.	3-12-1997		
			<del></del>	· ·				

Examiner		Date Considered
Signature	$\frac{1}{2}$	1/28/p <

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>&#</sup>x27;Unique citation designation number. 'See attached Kinds of U.S. Patent Documents. 'Enter Office that issued the document, by the two-letter code (WIPO Standard S.3). 'For Japanese patent documents, the indication of the year of reign of the Emperor must precede the serial number of the patent document. 'Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. 'Applicant is to place a check mark here if English language Translation is attached.

Substit		Form 1449A/PT			Attorney Docket No.: 04259.P032	Application Number: 09/955,529	
		MAR 0 5 2002 8			First Named Inventor: Mark Peting		
	P	Te BANGUERIA		<u> </u>	Filing Date: September 17, 2001	RECEIVED	)
				U.S. PATEN	NT DOCUMENTS	MAND 1 1 2002	
Exam.	Cite No.1	U.S. Patent	Document	Na	ame of Patentee or Applicant	Date of Publication	Pages,
Initial*	No.'	Number	Kind Code <sup>2</sup> (If known)		of Cited Document	Textyrology Senter 2	Columns,  GOOWhere Relevant Passages or Relevant Figures Appear
1		6,148,043			Fujimoto	11/14/2000	прреш
		6,141,391		Mo	relos-Zaragoza, et al.	10/31/2000	
7		6,138,265			relos-Zaragoza, et al.	10/24/2000	
		6,119,265			Hara	09/12/2000	
		5,974,095			Kitaura, et al.	10/26/1999	
		6,195,642	B1		Izumi, et al.	02/27/2001	
		6,122,325			Mogre, et al.	09/19/2000	
		6,049,573			Song	04/11/2000	
a	-	6,005,640			Strolle, et al.	12/21/1999	
						,	
							·

Exam. Initial*	Cite	For	eign Patent D	Document	Name of Patentee or Applicant	Date of	Pages,	T <sup>6</sup>
	No.¹	Office <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>s</sup> (If known)	of Cited Document	Publication of Cited Document MM-DD- YYYY	Columns, Lines, Where Relevant Passages or Relevant Figures Appear	•
		<u> </u>					-	
			ļ					

Examiner Signature	$\sim$	#	Date Considered	1/28/05
	 )			1

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>&#</sup>x27;Unique citation designation number. 'See attached Kinds of U.S. Patent Documents. 'Enter Office that issued the document, by the two-letter code (WIPO Standard S.3). 'For Japanese patent documents, the indication of the year of reign of the Emperor must precede the serial number of the patent document. 'Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. 'Applicant is to place a check mark here if English language Translation is attached.

Substitute f	or Form as many sh	1449A/PTO (Medified) Peets as necessary)	Attorney Docket No.: 04259.P032	Application Number: 09/955,529				
		MAR 0 5 2002 8	First Named Inventor: Mark Peting	RECEIVED				
		THE THOMASH SHOW	Filing Date: September 17, 2001	MAR 1 1 2002				
		OTHER ART - NO PATENT	LITERATURE DOCUMENTS	Technology Center 2600				
Examiner Initials*	Cite No <sup>1</sup>	Include name of the author (in CAPITAL L. of the item (book, magazine, journal, seria issue number(s), publisher, o	e(s), volume-					
4			JAMES TSUI, Frequency Channelization, Digital Techniques for Wideband Receivers, Second Edition, Pages 363 – 396, 2001 Artech House, Inc., Norwood, MA					
$\sim$	/	ZHENGDAO WANG and GEORGIOS B. GIANNAKIS, Wireless Multicarrier Communications where Fourier Meets Shannon, Department of ECE, University of Minnesota, Minneapolis MN., Pages 1-21						
W		E. VERRIEST, ISEN, Implementing an Adaptive Noise Canceling System to Enhance Sonar Receiver Performance Using the TMS320C31 DSP, ESIEE, Paris, September 1996, Texas Instruments, Pages 1-24.						
W	,	G.A. SHAW, R.A. FORD, J.C. ANDERSON, B.W. ZUERDNORFER, A.H. ANDERSON, RASSP Benchmark 2 Technical Description, Massachusetts Institute Of Technology Lincoln Library, 153 pages total.						
CV		"www.inventra.com/inventra/softcore/workshop/MultiRaFiltDes95/" MENTOR GRAPHICS, Hardware Design of Decimators/Interpolators, Pages 1-38.						
5			"www.mentor.com/inventra/softcore/workshop/SDmod95/", MENTOR GRAPHICS, Introduction to AD/DA Converters, Pages 1-27.					
CV.		http://www.mentor.com/inventra/softcore/workshop/SDHWDes95/ MENTOR GRAPHICS, Design of the Decimation & Interpolation Filters, Pages 1-57.						
CV		http://www.mentor.com/inventra/sof GRAPHICS, Sigma Delta Converter Applic		/, MENTOR				

Examiner Signature	9	 A	Date Considered	1/2	8/05	

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

<sup>\*</sup>Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

<sup>&</sup>lt;sup>1</sup>Unique citation designation number. <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached.